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Mr. Cliff Giffen
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P.O. Box 7
Monticello, UT 84535

October 23, 2017

RE: March 2018 Canyon Country Oil & Gas Lease Sale DOI-BLM-UT-Y010-2017-0240-EA

Delivered via email: BLM_UT_MB_Comments@blm.gov

Dear Mr. Giffen,

Friends of Cedar Mesa writes as a concerned stakeholder in response to the March 2018 Canyon Country Oil & Gas Lease Sale Preliminary Environmental Analysis (DOI-BLM-UT-Y010-2017-0240-EA). We thank the Canyon Country District for ongoing opportunities to provide comments during the National Environmental Policy Act review process and during the Section 106 consulting parties process, including the in-person meeting we attended October 13, 2017 for consulting parties. We will be providing the BLM more detailed data in a separate version of these comments specifically intended for the Section 106 process, which will include sensitive archaeological site information.

Having carefully reviewed the preliminary EA, Friends of Cedar Mesa (FCM) continues to have significant concerns, specifically in reference to the twenty-one parcels in the Monticello Field Office (MtFO). We request the BLM consider an alternative that would protect truly significant cultural resources by 1) permanently withdrawing from leasing 11 parcels until landscape level planning can be completed, including assessment of National Historic Register District eligibility for three potential districts, 2) withdrawing parcel 50 near Hovenweep National Monument, and 3) making a boundary adjustment on Parcel 36.

The southern zone of the proposed lease sale likely contains more nationally significant archaeology than has ever been included in a potential lease sale by the BLM. This region certainly holds the largest archaeological sites in the State of Utah, with the preponderance of its cultural resources eligible for the National Register for Historic Places (NRHP). In addition to the massive numbers of Ancestral Puebloan sites, the area also includes key Navajo and Ute cultural sites, especially rock art. As such, we support the Hopi Tribe in their efforts to protect Ancestral-Hopi sites and cultural landscapes in this area.

The EA speaks of the significance and high density of cultural resources in areas like Mustang Mesa, Alkali Ridge, Recapture Canyon, and Montezuma Canyon. FCM has staff, board members and supporters who regularly recreate in and study the archaeology of this area. In response to the proposed sale, FCM staff spent upwards of 80 hours in the field, ground-

truthing what we've heard about the archaeology in the proposed leases, visiting all but one of the lease parcels in the southern region.

Our fieldwork and research confirmed that the Area of Potential Effects (APE) includes, among other types of historic and prehistoric sites, many large prehistoric community centers that are interconnected with one another across space and time. Many smaller sites contribute to the NRHP eligibility of these large sites. Beautiful rock art also graces many of the leases, especially those in Montezuma Canyon. The setting, feeling and association of these Register eligible sites could easily be altered by energy development.

Unfortunately, the EA and associated Cultural Resources Review fail to assess the impact or effect to the setting of any of these important sites and essentially ignores the existence of a cultural landscape. By analyzing only the very limited question of whether or not a small well pad could be located on each lease without physically disturbing archaeological sites, the analysis puts the larger cultural landscape in real jeopardy.

Our comments outline the need to proceed cautiously with historic properties of the nature and density included in the proposed sale. The cultural resources review of the area was incomplete, especially given that it did not include the draft or final Monticello Field Office Class I & Class II predictive models. (See page 21 of EA). The APE and overall region would be best served by landscape level planning, the withdrawal of 12 parcels, and a more thorough data analysis.

Need for Proactive Landscape Level Planning

In the Canyon Country 2015 Oil & Gas Lease Sale, several parcels were deferred in the Alkali Ridge, Montezuma Canyon, and Hovenweep vicinities because of BLM determinations in both 2010 and 2015 of the need for additional analysis and information on impacts to cultural resources prior to leasing. (BLM, Master Leasing Plan (MLP) Assessment Glen Canyon-San Juan River 5 (Nov. 2010) and Memorandum from State Director, Utah, to Assistant Director, Minerals and Realty Management 2 (May 29, 2015)) In the 2015 Memo, the BLM stated that "BLM-Utah has been provided substantial new information from a wide variety of public lands stakeholders. The new information necessitates" further planning and analysis." This analysis has not yet been completed. In the published BLM list of deferred parcels, the reasoning for some of these SE Utah deferrals was attributed to the high amounts of unique cultural resources. (Utah State Office – List of Deferred Lands, Bureau of Land Management (3/27/2017)).

In the 2015 Lease Sale, the highest number of recorded sites in a deferred parcel was 29. (The parcel was UT0215-090, which was deferred because "Geographic area is known to possess considerable degree of unique cultural resources.") (Utah State Office – List of Deferred Lands, Bureau of Land Management (3/27/2017)). For the 2018 proposed sale, Parcel 38 has the highest site count with more than 200 sites and the average site count per parcel is 48. What this shows is that the 2018 Lease Sale has an even higher degree of cultural resources than the 2015 sale that resulted in many deferrals.

Nothing has changed on the ground or with planning policy since 2015 to suddenly allow for energy development decisions to be made in a knowledge vacuum. We do, however, have more resources including even better data (the MtFO's recent Class II predictive model) suggesting high probabilities of sites in these areas. We argue once again that the Montezuma Canyon/Alkali Ridge region of the MtFO requires landscape level planning to balance multiple, conflicting land uses.

This is a sensitive landscape in which avoidance stipulations and promises of Conditions of Approval are not enough. Because of the significance of the archaeology in the area and the large number of eligible historic properties, the stipulations in the 2008a RMP are insufficient when it comes to avoiding adverse effects to the setting, feeling, and association of cultural resources. The path to long-term preservation of archaeology needs to be considered before the APD process and its associated Conditions of Approval, since there is no guarantee at this point what COAs would be required. This landscape requires land managers to be thoughtful and consider the overlapping and compounding effects of development in such a broad cultural landscape. In an area with ACECs, National Historic Landmarks, public archaeology sites, and lands with wilderness characteristics, impacts can last long after drill rigs are gone.

Take for example lands with wilderness characteristics. Some of the lands with wilderness characteristics in the proposed sale, like Monument Canyon wilderness characteristics inventory unit and Tin Cup Mesa wilderness characteristics inventory unit, were created after the 2008a RMP and therefore have not been analyzed through a land use planning process. If drilling were to occur in these areas, the wilderness characteristics would be reduced, potentially removing the ability for these lands to qualify as Wilderness Characteristics Inventory Units. (Environmental Assessment, Canyon Country District, Moab & Monticello Field Offices, DOI-BLM-UT-Y010-2017-0240-EA (September 2017), 43-44) Other areas of land with wilderness characteristics that were analyzed in the 2008a RMP have been made unavailable to oil and gas development or have NSO requirements. Because these natural areas have not gone through the planning process, they have not yet been scrutinized for proper management.

What this landscape needed in 2015 and still needs in 2018 is a proactive landscape level planning process, like the proposed San Juan Master Leasing Plan. The majority of the leases in the MtFO section of the proposed sale overlap with the San Juan MLP (Parcels 29-34, 36, 37, 39-44, and 47-51). The MtFO Class I & II was the first step in this direction. Additional planning for a MLP will help balance cumulative impacts to air quality and rock art, special designations like Lands with Wilderness Characteristics, dark skies, VRMs, soundscapes and viewsheds. FCM strongly encourages the BLM to continue along with the San Juan MLP planning path in order to avoid resource conflicts and the unavoidable protest and litigation to follow.

NEPA analysis fails to find significant impacts to cultural resources

Section 4.2.2. Cultural Resources in the EA, which served to combine cultural resource compliance requirements under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA), failed to fully analyze impacts to cultural resources in the APE. The NHPA requires that when there may be adverse effects on historic properties eligible for the NRHP, the BLM must analyze and consider direct effects, indirect effects (including visual impacts to sensitive rock art sites) and cumulative effects on cultural resources. Specifically, they must look for adverse effects which are defined as: *“An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.”* (36 C.F.R. §§ 800.5-6) The EA found that, “While this lease sale has the potential to impact cultural resources, these impacts do not reach the significant, or adverse

effect, threshold.” (EA 37) This conclusion was drawn before the BLM had even met with the Section 106 Consulting Parties.

We strenuously disagree that the proposed action can be carried out in its entirety with zero adverse impacts to NRHP eligible properties. This conclusion means that there would not be even a single well pad located in a place that would affect the setting, feeling or association of any site eligible for the Register under a criterion other than D. We argue this is not a reasonable conclusion based on the number of eligible sites and their location on the landscape.

Section 106 Analysis did not fully analyze adverse effects pursuant to 36 C.F.R. §§ 800.5-.6

For historic properties that are eligible or likely eligible for the NRHP, the BLM is required to determine what adverse effects may occur as a result of reasonable foreseeable development. The APE of the proposed lease sale is littered with prehistoric community centers, large Ancestral Puebloan habitation areas and rock art sites that are eligible under Criterion C (as well as obviously Criterion D and sometimes Criteria A & B) of the NHPA for their properties “that embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.” (36 C.F.R. Part 60) At least four great houses from the Chacoan time period are found in the lease sale, as well as several other large community centers from other time periods. Their construction style and placement in regards to other great houses and man-made or geographical features is tied directly to the setting, association and feeling of the landscape. The avoidance criteria in the Special Cultural Resource Controlled Surface Use stipulation (UT-S-170) that will be applied to all the MtFO parcels is not enough to protect the integrity of the setting, feeling, and association of these truly significant historic properties. A well pad located outside of the avoidance area of a great house but still within the line of sight of that feature and other related features would adversely affect the properties that make the site eligible.

We understand it’s difficult to analyze setting, feeling and association over a landscape of this scale. However, the EA and associated Cultural Resources Review does not even attempt to analyze setting for even the most obvious sites, such as great houses, large community centers, cliff dwellings, and outstanding rock art panels. We have provided the BLM, in the Section 106 process, example viewshed analyses at several key sites. While this analysis effort represents a rounding error of the register-eligible sites in the sale, it shows that considerations of setting could put huge swaths of these leases off limits if adverse affects to setting are considered. The reasons for this is quite obvious when a larger cultural landscape perspective is used. Often, community centers and rock art sites were made at their locations because of their setting, often overlooking large valleys where they would have been farming or in direct line of sight with other sites. Failing to even consider adverse affects to the setting of these sites means the BLM has not met its responsibility to analyze reasonably foreseeable adverse effects to cultural resources.

For sites like community centers, large pueblos and great houses, we disagree that the cumulative impact analysis zone is restricted to the parcel and the .5 mile buffer. These significance of these sites is tied to their setting and therefore cumulative impacts to the greater setting should have been weighed in the Environmental Analysis and would have found to have adversely impacted these sites.

For some of the parcels, it is impossible to have reasonable foreseeable development without adverse impacts to setting. Avoidance is not enough – withdrawal for future landscape level planning is the most reasonable way to avoid adverse effects or impacts to these types of historic properties. And the first step to avoidance is doing a complete analysis of impacts to the integrity of the setting.

Site identification requirements not met per 36 C.F.R. § 800.4.b.1.

The National Historic Preservation Act requires that “The agency official shall take the steps necessary to identify historic properties within the area of potential effects.” (36 C.F.R. § 800.4.b.1) While we acknowledge the diligent and time-consuming work undertaken by BLM archaeologists on this project, we nonetheless believe sufficient efforts have not yet been taken to identify historic properties within the APE.

In 9 out of the 12 leases we have suggested for withdrawal, less than one third of the lease area has seen rigorous professional survey. Included in these survey percentage numbers are very old surveys, not up to modern standards. We also believe the amount of survey coverage is exaggerated by the assumption that linear surveys (for example for pipelines) cover a 15 meter buffer on either side of the survey line. While this 30 meter buffer is fairly standard practice today, this was by no means the standard 20 or 30 years ago, when many of the surveys in this area were undertaken.

Section 106 Analysis ignores past planning, research from Monticello Field Office Class I & II Model

Given the high number of known sites in this area and the lack of comprehensive, modern survey, a “reasonable and good faith effort to carry out appropriate identification efforts” would go beyond the relatively simple analysis included in the Cultural Resources Review that only considers sites and surveys in the BLM’s GIS databases and a single in-person meeting with consulting parties. We believe additional field surveys and sample field investigations are needed. Furthermore, NHPA says “... the agency official shall take into account past planning, research and studies, the magnitude and nature of the undertaking and the degree of Federal involvement, the nature and extent of potential effects on historic properties, and the likely nature and location of historic properties within the area of potential effects.” (36 C.F.R. § 800.4.b.1)

It’s hard to argue the agency official has taken into account “past planning efforts” and the “likely nature and location of historic properties” when the Cultural Resource Review explicitly ignored the recent probability model the BLM itself created to predict the likelihood of sites within the APE. When overlapped with the Area of Potential Effects for the lease sale, the individual site type models of the Monticello Field Office Class II would have been highly instructive in the Section 106 analysis. For example, the prehistoric rock art model shows a high probability of rock art sites in the canyons of Alkali, Jenny, Montezuma, and others in the APE. The probability map for open sites with features shows primarily medium probability and secondary high probabilities in the Blanding subregion. (*A Class I Cultural Resource Inventory of Lands Administered by the Bureau of Land Management, Monticello Field Office: Part 1 Regional Overview – Draft*, Prepared for the BLM by SWCA Environmental Consultants, July 2017).

Likewise, it's difficult to argue the agency has taken into account "research and studies" on the area, when there is no bibliography of past research in the Cultural Resources Review or any mention of key studies, such as the 2013 "A Summary of the Archaeological Resources of Montezuma Canyon" by Ray Matheny and Fumiyasu Arakawa. Due to the nature of this undertaking, much greater efforts could be considered "reasonable," such as contacting researchers (e.g. Fumi Arakawa) and asking for their database of sites within the APE.

Sensitive viewsheds need additional analysis

As indicated by the BLM, many of the parcels in the project impact zone will have their viewsheds impacted by oil and gas development. Recapture Canyon (Parcels 29, 30, 31, 32, 33, 34, and 38), the parcel adjacent to and near the San Juan River (Parcel 36) and the parcels near Hovenweep National Monument and Canyons of the Ancient National Monument (Parcels 50 and 51) will be particularly subject to these cumulative impacts.

Viewsheds are integral to the setting, feeling and association of prehistoric community centers and large occupational sites. Adverse effects to viewsheds are an important component to the setting, feeling and association protected in the NHPA, as discussed above. We request that additional viewshed analysis be completed as to how community centers, large pueblos and major rock art sites would have their setting, feeling and association, and therefore Criteria C & D eligibility for the NRHP impacted. On October 11, 2017, FCM shared a zip file with 8 example viewshed analyses done in Google Earth from key sites. This analysis on a few select sites show the potential of adverse impacts on a broad scale, which often reaches beyond parcel boundaries to adjacent parcels. This is just a sample of the type of viewshed analysis that is required to fully understand and then analyze impacted settings.

Impacts of dust insufficiently analyzed

FCM remains concerned that adverse effects on rock art from fugitive dust emissions from operation traffic and development are reasonably foreseeable and were not analyzed in the EA. It states that road dust (PM10, PM2.5) would result from vehicles servicing wells (EA 33) but it did not specify that the Emissions Inventory would consider impacts to archaeology, in particular rock art, from particulate matter. By dismissing these types of emissions, they are allowing impacts from dust that have been shown to occur to roadside archaeology in Nine Mile Canyon from oil and gas traffic.

The significant potential for adverse cumulative impacts to rock art sites from dust is highest along the Montezuma Canyon road, where Register eligible sites are sometimes just a few feet from the roadway. As such, we contend a reasonable effort to assess adverse effects to rock art would require a field survey of the major rock art panels within 100 meters of the roadway and a related mitigation plan for impacts on roadside archaeology in the zone.

Reasonable Foreseeable Development Critique

FCM contends the BLM's current Reasonably Foreseeable Development Scenario (RFDS) is out-of-date and inconsistent with modern technologies, such as hydraulic fracturing. The RFDS included in the current RMP essentially assumes no developer will hit producing quantities of oil or gas and development will be restricted to exploratory wells. This is based off a pattern of development in the area that did not use modern technologies. Even North Dakota's Bakken Field had very low production until the advent of fracking. Obviously, if a developer hits oil on a

lease, they will want to drill more than one well pad. As such, we believe a serious analysis of impacts requires an update to the RFDS that takes into account modern technologies.

To illustrate this, the proposed lease sale represents 18% of the leasable lands in the MtFO. However, the EA predicts only 8 acres/disturbance a year, and 1 well a year is anticipated. One well in the MtFO has the average footprint of 9.6 acres, so even one well pad would be greater than 8 acres of disturbance a year. That's assuming that only one well would be built a year, and it would be economically infeasible for development to include only drilling one well on a lease. We therefore do not find it realistic to analyze for direct, indirect and cumulative effects based on the idea of only one well pad per parcel.

Despite the fact that the EA analysis is limited to the RFDs, the EA says parcel holders have the right to use as much of the land as necessary, though subject to restrictions. "Once the lease has been issued, the lessee has the right to use as much of the leased land as necessary to explore for, drill for, extract, remove, and dispose of oil and gas deposits located under the leased lands, subject to the standard lease terms and additional restrictions attached to the lease in the form of lease stipulations (43 CFR 3101.1-2)." (EA 5). Therefore, it's very easy to foresee a scenario where much more development occurs than is analyzed in the EA, with even greater potential adverse effects to Register-eligible sites.

Recommended alternative to proposed action for leases

The Monticello Field Office has the discretionary flexibility to respond to comments received in the NEPA and Section 106 processes in order to protect natural and cultural resources that would be otherwise impacted directly, indirectly, or in the long run by this proposed action. (Oil and Gas Adjudication Handbook: Competitive Leases, H-3120-1 – COMPETITIVE LEASES (P), 2/18/13). Our parcel-by-parcel analysis below offers an alternative action and next steps for balancing energy development in one of these most archaeologically dense landscapes in the United States.

We remain concerned with all 21 proposed parcels in the MtFO and every one of these will be highly scrutinized every time an APD comes in, should they be leased. However, we have highest concern for 13 parcels in the proposed lease sale. Current stipulations and lease conditions simply are not enough to avoid adverse effects, especially to the setting and association of key sites eligible for the Register under criteria other than just D. As demonstrated above, the eligibility of sites like community centers is dependent on their setting, and parcels containing such historic properties merit special attention and withdrawal until comprehensive cultural landscape planning can be undertaken in the future.

FCM argues the historic properties contained in 11 parcels (28, 29, 30, 31, 32, 37, 38, 39, 40, 43, and 44) are of national importance and should be withdrawn from leasing. We believe the connected landscapes that surround these parcels are eligible to be considered for National Historic Register District status. Although FCM has only begun the District nomination process, we plan to nominate the following three Districts in the near future.

- Mustang/Jenny's Archaeological District
- Alkali Ridge Archaeological District
- Montezuma Canyon Archaeological District

These cultural regions should be considered for nomination as National Historic Register Districts because of the system's of great houses, community centers and large pueblos and their linkages to other landscape features. These large, individual features serve as focal points of the entire, continuous cultural landscape. Ultimately, these areas have more meaning as a whole than as separate sites, and their scattered eligible and non-eligible properties contribute to their eligibility as a whole. As archaeological districts, planning can better prevent adverse effects to Criteria C & D eligibility, especially as it relates to the integrity of setting, association and feeling.

For the parcels in these proposed districts, many of the sites are likely eligible under Criteria C or D, if not already determined eligible. For the concentration of connected historic properties in these areas, it is not enough that the BLM can impose more protective measures for cultural resources at the APD level. There is no guarantee that impacts will be avoided.

These resources are too sensitive and their significance too interconnected to be drilled, especially without a comprehensive plan. We believe because of future drilling and development, the criteria for adverse effects in 36 CFR 800.5(a)(1) to historic properties or districts is met, particularly in regards to the integrity of setting, feeling and association of the qualities that contribute to the significance of the sites. Because there will be adverse effects from future oil and gas development, these effects should be altogether avoided across the landscape by withdrawing these parcels from current and future consideration for leasing.

Recapture/Mustang Archaeological District:

This area includes parcels 29, 30, 31, and 32, as well as surrounding areas of Recapture Canyon, Jenny's Canyon, and Mustang Mesa. The area is home to at least three Chacoan-era great houses (two within the lease sale boundaries). It's also home to dozens of well-preserved cliff dwellings, large pueblos, and canyon-head tower sites. While less plentiful in rock art than Montezuma Canyon, there are several important panels within this region.

Alkali Ridge Archaeological District:

This area includes parcels 28 and 38, as well as the Alkali Ridge National Historic Landmark and the Alkali Ridge ACEC. A great deal of early archaeological work occurred in this area, and the area still holds significant research potential. The district includes multiple community center sites, across several prehistoric time periods, including at least one great house and two large community center sites in the lease area. Parcel 28 is only one mile from the National Historic Landmark and has seen the second lowest amount of archaeological survey of any of the leases in the sale. Lease 38 has the highest number of known sites in the sale.

Montezuma Canyon Archaeological District:

This area includes parcels 37, 39, 40, 43, and 44. Montezuma Canyon was a major Ancestral Puebloan corridor, and also includes many important Ute and Navajo sites. The Canyon is home to more than a half dozen major community centers, with parts of three included in the lease sale boundaries. The Canyon is also home to a rich rock art assemblage.

Additional withdrawal due to proximity to federally designated areas

We ask that the BLM withdraw Parcel 50 because of its proximity to Hovenweep National Monument and continuity with Canyons of the Ancients National Monument. This parcel contains terrain of sweeping vistas and celebrate dark skies that can be experienced from Hovenweep National Monument. Large sites protected by the Canyons of the Ancients designation are within the .5 mile buffer of the lease (one major site is actually part in and part out of the lease sale and Canyons of the Ancients) and their setting would undoubtedly be compromised by an oil well pad in their vicinity. In addition to withdrawing Parcel 50, we request that the BLM fully analyze effects on *setting, association and feeling* of eligible sites in these parcels, and notable sites just a few hundred feet from the boundary of parcel 50.

Boundary adjustment to Parcel 36

FCM recommends a boundary change to Parcel 36 to exclude the San Juan River floodplain, the cliffs above the river, and the intermediary terraces above those cliffs. These areas host a great house, a large pueblo, and dozens of rock art images. Making this boundary adjustment will avoid cultural resource and water quality impacts within the ACEC. Much of this area is already listed as NSO and this boundary change could avoid litigation and protest from adverse impacts and water quality degradation from fracking.

Other Considerations

We request that the BLM notes in the final EA that the “no action” alternatives and an alternative that includes withdrawals would *not* diminish federal and state royalty income, as the EA incorrectly assumes on page 31. No action on these parcels will result in no new additions to royalty, but not a reduction in royalties.

In conclusion, we thank the BLM Canyon Country District and Monticello Field Offices again for the opportunity to provide public comment throughout the NEPA process. We respectfully request that the BLM consider and adopt an alternative to the proposed action that is reasonable and responds to both archaeological knowledge gaps and new research in the APE, and we encourage the BLM to continue preparations for the San Juan MLP. For questions and concerns, please contact me via email at josh@cedarmesafriends.org or phone at 801.410.0773.

Sincerely,



Josh Ewing
Executive Director

CC: Douglas Rowles, drowles@blm.gov

CC: John Chmelir, jchmelir@blm.gov